AMENDMENT

IN THE CLAIMS:

1. (Currently Amended) A mold valve assembly for a molding system, the mold valve assembly comprising:

a mold valve chamber comprising an output port, said mold valve chamber defining a first axis;

an injection chamber in communication with said mold valve chamber, said injection chamber defining a second axis transverse to said first axis;

an injection piston movable within said injection chamber, said injection piston including an end segment that is movable to define a portion of an inner perimeter of said mold valve chamber, wherein said end segment includes an arcuate portion~~wherein a portion of said injection piston is moveable into said mold valve chamber~~; and

a gas injection system in communication with said mold valve chamber.

2. (Previously Presented) The mold valve assembly as recited in claim 1, wherein said gas injection system comprises a gas source in communication with a gas inlet through said mold valve chamber.

3. (Previously Presented) The mold valve assembly as recited in claim 1, further comprising a mold valve piston movable within said mold valve chamber, wherein said mold valve piston comprises a non-metallic portion between a first metallic portion and a second metallic portion.

4. (Previously Presented) The mold valve assembly as recited in claim 3, wherein said mold valve piston is selectively movable to block a gas inlet through said mold valve chamber.

5. (Original) The mold valve assembly as recited in claim 4, wherein said mold valve piston scrapes said end segment as said mold valve piston moves toward an output port.

6. (Currently Amended) A molding system comprising:

a mold assembly which defines a mold cavity;

a mix head assembly selectively mountable to said mold assembly;

a mold valve assembly including a mold valve chamber in communication with an injection chamber and an injection piston movable within said injection chamber, wherein said injection piston includes an end segment that is movable to define a portion of an inner perimeter of said mold valve chamber, wherein said end segment includes an arcuate portion ~~and a portion of said injection piston is moveable into said mold valve chamber~~; and

a gas injection system in communication with said mold valve assembly to selectively inject gas into said mold cavity through said mold valve chamber of said mold valve assembly.

7. (Previously Presented) The molding system as recited in claim 6, wherein said mix head assembly is in communication with said mold valve assembly.

8. (Original) The molding system as recited in claim 7, further comprising a feed assembly in communication with said mix head assembly.

9. (Previously Presented) The molding system as recited in claim 6,
wherein said mold valve chamber comprises an output port, said mold valve chamber defining a first axis, and wherein said injection chamber defines a second axis transverse to said first axis.

10. (Previously Presented) The molding system as recited in claim 9, wherein said gas injection system communicates with said mold valve chamber in response to a position of a mold valve piston movable within said mold valve chamber.

11-14. (Cancelled)

15. (Previously Presented) The mold valve assembly as recited in claim 1, further including a gas source, wherein gas is selectively injected into a mold cavity from a gas source in response to movement of said mold valve piston within said mold valve chamber after a molded article has cured within a mold cavity.

16. (Previously Presented) The molding system as recited in claim 9, wherein said mold valve piston comprises a non-metallic portion between a first metallic portion and a second metallic portion, and said non-metallic portion defines an interference fit within said mold valve chamber.

17. (Previously Presented) The molding system as recited in claim 9, wherein gas is selectively injected into said mold cavity from a gas source in response to movement of said mold valve piston within said mold valve chamber after a molded article has cured within said mold cavity.

18. (Previously Presented) The mold valve assembly as recited in claim 1, wherein said gas injection system is an air injection system.

19. (Cancelled)

20. (Previously Presented) The molding system as recited in claim 6, wherein said gas injection system is an air injection system.

21. (Cancelled)

22. (New) The mold valve assembly as recited in claim 1, wherein the mold valve chamber has a substantially circular cross-section and said arcuate portion defines a portion of the substantially circular cross-section of said mold valve chamber.

23. (New) The mold valve assembly as recited in claim 1, wherein said arcuate portion has endpoints aligned with said first axis.

24. (New) The molding system as recited in claim 6, wherein the mold valve chamber has a substantially circular cross-section and said arcuate portion defines a portion of the substantially circular cross-section of said mold valve chamber.

25. (New) The molding system as recited in claim 6, wherein said arcuate portion has endpoints aligned with said first axis.